



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,110	02/17/2004	Duane D. Blatter	11502/34	6495
7590 STOEL RIVES LLP One Utah Center Suite 1100 201 South Main Street Salt Lake City, UT 84111				
06/09/2009				
EXAMINER				
YABUT, DIANE D				
ART UNIT		PAPER NUMBER		
3734				
MAIL DATE		DELIVERY MODE		
06/09/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/780,110

Applicant(s)

BLATTER ET AL.

Examiner

DIANE YABUT

Art Unit

3734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/11/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This action is in response to applicant's amendment received on 07/11/2008.

The examiner acknowledges the amendments made to the claims.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-13, 15-16, 18-37, 39-48, and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardy, Jr. et al., hereinafter "**Hardy**" (U.S. Patent No. **4,552,148**) in view of **Huxel et al.** (U.S. Patent No. **6,503,259**).

Hardy disclose a vascular anastomosis device including first and second rings **32** or **58** having holding surfaces or tabs (see Figures 8-9 and 16-17) extending from flexible segments that define ring openings that are configured to hold first and second vessels together without requiring penetration of the vessels, wherein the rings are configured to be structurally linked by guides **43** or **70** that provide guided coaxial movement of the rings relative to each other. The first ring holds an end of a first vessel **24** defining a first vessel opening and the second ring holds a portion of a second vessel **26** defining a second vessel opening of the second vessel. Locking means separate from the holding surfaces, such as legs with guides or slots **43, 70** which frictionally engage legs with guideposts or locking extensions **42, 66**, for locking the first

ring and the second ring together in an interdigitated configuration are disclosed, which guide the movement of one ring relative to the other (Figures 3 and 11). The rings capture tissue in an everted configuration (partially everted tissue in Figures 9 and 17) or adventitial surfaces of vessels.

Hardy does not expressly disclose the rings being configured to expand and contract or having flexible segments, although Hardy does acknowledge that a variety of diameters for the ring members are desirable to provide needed versatility (col. 4, lines 39-50). Hardy also describes the rings being urged together (col. 4, lines 63-64), but does not expressly disclose an attachment actuation means. In addition, Hardy lacks an anchor on the holding means for more securing the vessels.

Huxel et al. teach vessel anastomosis rings **12** and **14** with flexible, circular shaped segments **30** and **18** being configured to expand and contract to enable each respective vessel opening to change in diameter in unison when first and second vessels are anastomosed, moving from a compressed or initial position to a deployed or expanded position, and may expand and contract afterwards (Figures 1 and 8, col. 4, lines 8-11 and col. 4, line 64 to col. 5, line 10). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the rings of Hardy to be expandable and contractable, as taught by Huxel et al., in order to maintain the connection between the rings and the tissue, as well as to permit peristalsis (see abstract).

Huxel et al. also teach an attachment actuation means **38** for locking together anastomosis rings (Figures 5-7). It would have been obvious to one of ordinary skill in

the art at the time of invention to provide an attachment actuation means, as taught by Huxel et al., to Hardy to facilitate aligning and urging together the rings for effective locking and anastomosis of the vessels.

An anchor means **16** in Huxel et al. (Figure 8) also aids the device in securing holding surfaces of the rings together. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the holding surfaces of Hardy by including an anchor means, as taught by Huxel et al., in order to secure the anastomosis while also acting as force distributor and moderator (col. 4, lines 50-53).

3. Claims 14, 17, 38, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hardy** (U.S. Patent No. **4,552,148**) in view of **Huxel et al.** (U.S. Patent No. **6,503,259**) as applied to claims 13, 37, and 48 above, and further in view of **Spence et al.** (U.S. Patent No. **5,868,763**).

Hardy and Huxel et al. disclose the claimed invention except for each flexible segment comprising two adjoining arms in a V-shaped configuration and is adjoined to an adjacent flexible segment by a connecting joint, wherein each flexible segment Of each ring comprises a flexible segment joint, wherein the holding tabs of the first ring extend from the connecting joints, and the holding tabs of the second ring extend from the flexible segment joints.

Spence et al. teach flexible segments **50** having two adjoining arms in a V-shaped configuration which have flexible segment joints **52** and are connected to adjacent segments by connecting joints wherein holding tabs **101** and **102** extend from

the joints (Figure 19). It would have been obvious to one of ordinary skill in the art at the time of invention to provide a V-shaped flexible segment with connecting and segment joints to the flexible segments, as taught by Spence, to Hardy and Huxel et al. since it was old and well known in the art as a framework that act as hinges to facilitate radial expansion and contraction.

Response to Arguments

4. Applicant's arguments with respect to claims 1-52 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIANE YABUT whose telephone number is (571)272-6831. The examiner can normally be reached on M-F: 9AM-4PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Todd Manahan can be reached on (571) 272-4713. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Diane Yabut/
Examiner, Art Unit 3734

**/Todd E Manahan/
Supervisory Patent Examiner, Art Unit 3734**